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ABSTRACT

Evaluated was a 3-year graduate program to train teachers of emotionally disturbed (ED) children. The program's major goals were the acquisition of basic knowledge in special education and child development, the attainment of skills for professional teaching competence, and the development of deepened sensitivity to oneself and others. The training sequence involved an intensive learning experience (seminars and internships) and practicums experience in different activities (such as classroom teaching) at a therapeutic school for ED pupils. Before and after each academic year, three groups of eight students each were administered test batteries (measuring competencies, attitudes toward education, and interpersonality characteristics) along with two self-evaluation instruments. Results comparing pre- and post-program attitudes showed that trainees reported they felt less disturbed by overly aggressive behavior of children, increased their skill in decoding affective statements, tended to see others as less lovable and less competent, and checked a greater number of favorable adjectives when rating themselves. Follow-up interviews indicated that graduates felt the program provided the most effective training for those areas (personal sensitivity and behavior management) which they also considered most relevant. (Tables and figures are provided.) (SB)

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FINAL 3-YEAR PROGRAM EVALUATION AND RESEARCH REPORT

to

The U.S. Office of Education

Bureau of Handicapped Children

Innovation Grant

Teacher Training in the Area of

Emotionally Disturbed Children

The American University

Department of Education: Special Education

Project Director: Nicholas J. Long, Ph.D.

Research Director: Michael A. Deem, Ph.D.

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June, 1973

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OVERVIEW

For the past four years we have been involved in developing an alternative training model for teachers who want to learn skills in assessing, in structing, and managing pupils with severe learning and behavioral problems. Based on specific competencies, a prolonged practicum experience and close supervision, the program was developed at Hillcrest Children's Center, a therapeutic school for emotionally disturbed pupils from the Greater Washington Area. While this model solved many of the nagging problems of a University-Based Training Model, it also created many new ones. In an attempt to evaluate the strengths and weaknesses of our model, a three-year analysis is presented for your evaluation. The report includes a Description of the Program, and a Program Evaluation including our graduates, their analysis of our Competency Measures, and our analysis of their personality characteristics.

During this period we have developed additional materials that are available upon request such as; (1) The Video-Tape Program, (2) The Screening Procedures and Process for Applicants, (3) The Apprenticeship Model of Training.

In September, 1972, the program was moved from Hillcrest, a private facility, to The Rose School, a public facility of The District of Columbia Department of Human Resources and The District of Columbia Public Schools Department of Special Education. This change keeps the program in the eye of the educational storm regarding the public school's responsibility, and programs for exceptional pupils. While this position is uncomfortable at times, we feel this is where University Training Programs belong.

Nicholas J. Long.

DESCRIPTION OF PROGRAM

For several years, The American University was interested in developing a graduate program in the area of teacher training for emotionally disturbed children. The University determined that the plans for developing a new major program should properly include: direct influence in and availability of a special education center that would function as a Training Center, the hiring of a recognized authority in the field, and a training program that would be experimental, imaginative, and comprehensive.

The university conditions were fulfilled by the following measures. In 1968 the Board of Directors of Hillcrest Children's Center and American University's Department of Education agreed to an arrangement in which the pre-school and elementary school programs of the Psychoeducational Institute at Hillcrest would become the Training Center for American University. Dr. Nicholas J. Long, Director of the Psychoeducational Institute, was appointed Professor of Education at American University and designated as Training Director for the program. The psychoeducational staff of Hillcrest became the faculty for a Center for Special Education in the Area of Emotionally Disturbed, with each teaching

staff member designated as Adjunct Professor or Lecturer of the University. Because of the uniqueness of this agreement, in which University faculty was also responsible for the on-going educational program, an innovative and experimental teacher training program was developed, weaving together as a unified experience academic study and daily practice teaching.

The program was funded by a demonstration grant from the U.S. Office of Education, Bureau of Handicapped for a three-year period: June, 1969 through May, 1972. To date, three groups of eight students have graduated from the program and received Master's degrees in Education, with concentration in Special Education.

Program Objectives

The A.U.-Hillcrest teacher training program had two basic premises. The first was that facilities such as Hillcrest could become unique training centers for graduate students in special education through university affiliation. Academic study and practicum experience could be successfully integrated in such an affiliation. The second premise was that qualified college graduates with no undergraduate teacher training courses could become competent special educators of emotionally disturbed children in one year, in particular because of the constant combination of practicum and theory.

The objective for graduates of this program was that they become professionally competent to develop, maintain, and evaluate a healthy educational program for emotionally disturbed children. To accomplish this, academic pursuit and practical experience were focused on seven major training goals. These seven goals, outlined in detail below, covered three major areas of student development: (1) the acquisition of basic knowledge in special education and child development; (2) the acquisition of basic knowledge and skills for professional teaching competence (curriculum, psychoeducational assessment, teaching methods, behavior management); and (3) the development of deepened sensitivity to oneself and to others, which is stressed throughout the year as is the ability to use this awareness in teaching children and working with colleagues.

Goal 1: To Develop an Awareness of how Family, Social and Educational Forces Influence the Pupil's Behavior and Adjustment in School.

Sub-goal (a). Ability to formulate and communicate concepts of how systems function, e.g., familial, cultural, educational.

Sub-goal (b). Ability to relate individual characteristics and behavior to group and system transactions.

Sub-goal (c). Ability to relate individual characteristics and behavior to life style culture, with particular emphasis on urban Black.

Goal 2: To Develop Personal Sensitivity

Sub-goal (a). Ability to comprehend and communicate effectively with others: to perceive accurately one's reactions to and effect upon others.

Sub-goal (b). Ability to accept and to freely express positive and negative emotions.

Sub-goal (c). Ability to promote mutual understanding of problems and the exchange of ideas among co-workers.

Goal 3: To Develop Basic Knowledge of Concepts and Practices of Child Development and Special Education

Sub-goal (a). Appreciation of the influences of constitutional, maturational and environmental factors, and their interaction, on child development.

Sub-goal (b). Knowledge of alternative models of special education and their application.

Goal 4: To Develop Basic Knowledge of Psychoeducational Assessment.

Sub-goal (a). Knowledge of measurement theory, concepts and problems.

Sub-goal (b). Ability to create an optimal atmosphere for assessment, including appreciation for both empathy and structure.

Sub-goal (c). Ability to observe objectively and to evaluate data meaningfully.

Sub-goal (d). Use of assessment information for psycho-educational programming, planning, and follow-up.

Goal 5: To Develop Basic Knowledge of Curriculum and Teaching Methods in Special Education

Sub-goal (a). Basic knowledge of subject matter and teaching methods in language arts, mathematics, science and social studies.

Sub-goal (b). Ability to present educational material and tasks at a level of reasonable challenge for each child in the classroom.

Sub-goal (c). Ability to make curriculum and teaching techniques responsive and relevant to the needs of each child in the classroom.

Goal 6: To Develop Basic Knowledge of Remedial Education.

Sub-goal (a). Familiarity with special curriculum resources and activities for specific learning deficits.

Sub-goal (b). Ability to evaluate learning outcomes in relation to progressive development of educational or teaching sequences.

Sub-goal (c). Ability to structure close teacher-pupil relationships in order to facilitate learning and self-fulfillment.

Goal 7: To Develop a Basic Knowledge of the Management of Behavior in Children.

Sub-goal (a). Ability to establish and present realistic behavior standards (limits) in an educational setting.

Sub-goal (b). Ability to identify, support, and promote appropriate group and individual behavior of pupils in an educational setting.

Sub-goal (c). Ability to develop and use techniques of teacher intervention to protect the group and pupil from disruptive school behavior.

Sub-goal (d). Ability to educationally exploit inappropriate classroom behavior to teach new skills for coping with interpersonal and curriculum tasks.

Training Sequence

Trainees in the A.U.-Hillcrest program were involved in an intensive learning experience for a full year. During 1969-1970 and 1970-1971, the program actually took place in three different settings: The American University campus, Hillcrest Children's Center, and special classes in the Montgomery County (Md.) Public Schools. An overview of the training sequence is presented in the following diagram.

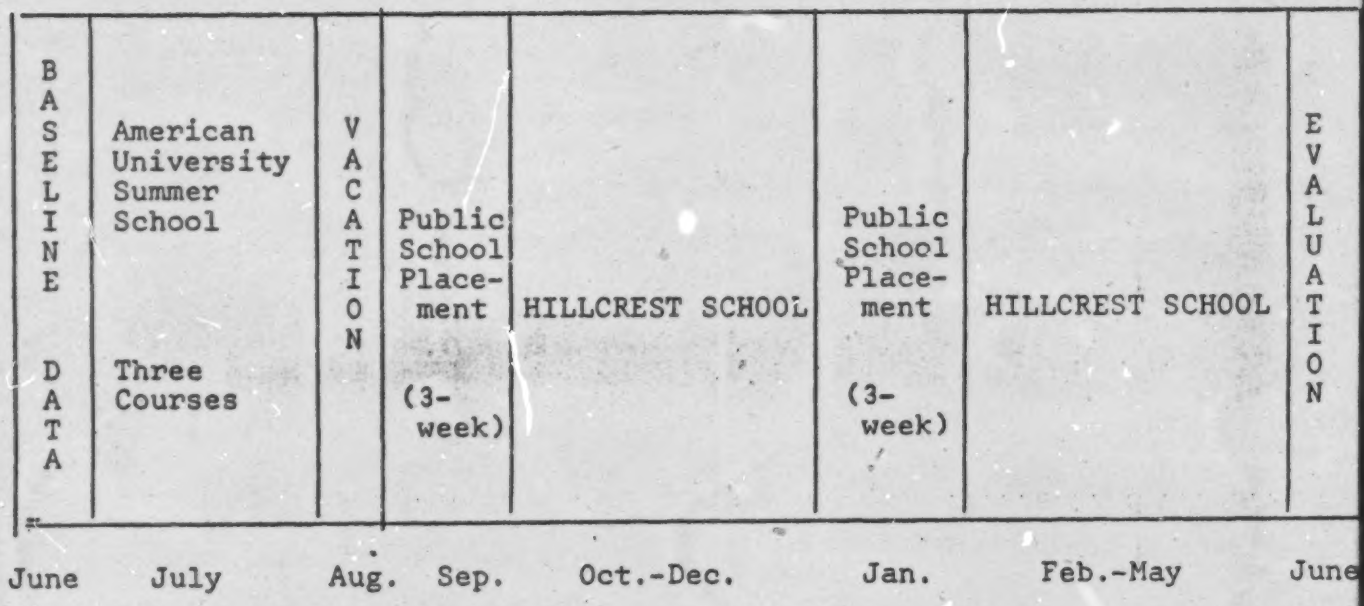

Figure 1: Organization of the Year's Program.

1. Summer session at American University Campus.
2. Six full weeks teaching in public school special classes (3 weeks in September and 3 weeks in January).
3. Seven and a half months at Hillcrest Children's Center teaching on a full-time basis, including daily seminars.
4. One week in the school and residence program on a 24-hour basis.
5. Approximately every six weeks the school closes in order for the total staff and trainees to evaluate the training program.

During academic 1971-1972, a three-week orientation program was held during September and public school placement consisted of four weeks in the District of Columbia, Prince George's and Montgomery Counties (Md.) school systems in January.

Academic Program

During each year, a total of 13 courses were presented at A.U. and at Hillcrest. Thirty-seven credits were granted upon completion of the year: 29 credits for the courses, with 8 additional credits granted for the internship practicum. A listing of the courses and the credit hours assigned to each follow:

Section 1. American University Summer Session:

a.	Philosophy of Education	3 hours
b.	Advanced Educational Psychology	3 hours
c.	Research Methods in Education	3 hours

Section 2. First Semester Seminars

a.	Theories and Methods of Urban Education	2 hours
b.	Method of Studying Group Behavior	2 hours
c.	Theories of Child Development	2 hours
d.	Language Arts and Social Studies Curriculum	2 hours
e.	Methods of Remediation in Special Education	2 hours
f.	Methods of Managing Inappropriate Classroom Behavior	2 hours

Section 3. Second Semester Seminars

a.	Theories and Methods of Urban Education	(cont'd)
b.	Methods of Group Dynamics in Special Education	2 hours
c.	Theories and Practices in Special Education	2 hours
d.	Psychoeducational Assessment	2 hours
e.	Mathematics and Science Curriculum	2 hours
f.	Methods of Remediation in Special Education	(cont'd)
g.	Methods of Managing Inappropriate Classroom Behavior	(cont'd)

Section 4. Internship 8 hours

Trainees spent the summer on the A.U. campus enrolled in three courses required for all cnadidates for the Master

of Education degree. These courses were taught by University faculty other than Hillcrest staff. Philosophy of Education examined the rationale underlying the process, purposes and methodology of education. Advanced Educational Psychology focused on the psychological principles and current research studies related to education. Research Methodology reviewed research design with primary emphasis on understanding and evaluating educational research reports.

Seminars taught at Hillcrest by Hillcrest staff were taken simultaneously with daily half-day sessions of student teaching under the constant supervision of master teachers. This created a constant two-way flow of theory and practice: theories presented in a seminar were often seen illustrated in the next day's session with the children. A brief description of each seminar follows.

Theories and Methods of Urban Education was designed to demonstrate how the total environment in which inner city children live affects their ability to learn, feel, and behave and how inner city schools in Washington, D.C., function. To facilitate these two goals, the course included bi-weekly field trips to appropriate community agencies, schools and neighborhoods.

Methods of Studying Group Behavior was designed along the lines of a process group. Under the careful direction of a trained group specialist, the trainees had an opportunity

to explore interpersonal and intrapersonal communications and understand how groups function. These experiences were related to the role of the classroom teacher in special education.

Theories of Child Development reviewed basic theories of child development including psychoanalytic, social learning and cognitive-developmental theories. The course focused on such concepts as critical periods, stage and phase development, primary and secondary drives and reinforcement, hierarchy of motivational needs, defense mechanisms, developmental lines and self-mastery. Material on early childhood differences in constitution, personality and rearing practices were covered and related to the students in the trainees' classroom. Additional didactic learning was obtained through seminars, conferences, and institutes offered at the Children's Hospital of the District of Columbia, particularly in the Department of Psychiatry.

Language Arts and Social Studies Curriculum examined the relationship between the teacher and his curriculum, and the learner and his need system. The first semester concentrated on language arts and social studies including the following aspects: recognition of the teaching of reading as a crucial educational responsibility, insight into the reading process in relation to principles of learning and child development, materials and techniques for specific

learning outcomes, the role of language in the child's life, and the interrelationships among various phases of language arts.

Methods of Remediation reviewed remedial principles of teaching children with learning problems. The seminar covered basic phonetic approaches, construction and administration of informal reading and developmental skill inventories, and teaching programs for skill development. Practicum experience included individual and group observation and teaching, lesson planning, supervisory conferences, developing teaching resource file, and, during the second semester, tutoring three times per week.

Managing Inappropriate Classroom Behavior reviewed the theories of management based upon the psychoanalytical, psychoeducational, behavioral, and educational models. Particular attention was given to understanding and developing skills around behavioral management as well as life space interviewing skills. In addition to readings and discussion, trainees discussed examples of behavioral crises from their supervised classroom experience. Many of these "examples" were available on video-tapes.

Methods of Group Dynamics in Special Education continued to provide the trainees with an opportunity to explore the techniques of interpersonal and intrapersonal group communication and understanding. Continued efforts were made to relate these experiences to the teaching role.

Theories and Practices in Special Education covered three phases during the semester: overview of the field of exceptional children, theories of re-education, and current research and writings in the field of special education.

The Seminar in Psychoeducational Assessment was designed to develop an appreciation of the assessment process by which one attempts to understand a child's learning and behavior. The course examined critical issues and concepts in measurement of abilities and behavior, data interpretation, psychoeducational programming and follow-up evaluation. Practicum experiences included observation and participation in classroom activities, group and individual testing, and psychoeducational case conferences.

Math and Science Curriculum in Special Education replaced the language arts and social studies seminar during the second semester. This course covered basic material in math and science through readings, demonstrations, educational games, and laboratory exercises. All material developed was implemented in the trainees' classroom whenever appropriate.

An additional non-credit seminar met monthly for discussion of books selected by staff members as particularly topical and relevant. For example, titles selected for this "Great Books Seminar" in 1970-71 were:

September: How Children Fail and How Children Learn (Holt)

October: The Emotionally Disturbed Child in the Classroom (Hewett)

November: Black Skin; White Mask (Fanon)

February: Controls from Within (Redl)

March: The Other 23 Hours (Trieschman)

April: The Magic Years (Fraiberg)

May: Reality Therapy (Glasser)

June: Mario The Magician (Mann), and The Magus (Fowles)

The relationship between the seven program goals and the various seminars and courses is indicated in the following outline.

GOALS	SEMINARS/COURSES
1. System Awareness*	1. Urban Education 2. Group Behavior
2. Personal Sensitivity	1. Group Behavior
3. Child Development & Special Education	1. Child Development 2. Special Education** 3. Psychology of Education 4. Philosophy of Education
4. Psychoeducational Assessment	1. Assessment** 2. Research Methods
5. Remedial Education	1. Remediation**

*Once monthly: didactic on administration and didactic on family (case conference).

**These 3 seminars had an associated practicum: Sociometric techniques, testing and tutoring, respectively.

GOALS (cont'd)	SEMINARS/COURSES (cont'd)
6. Curriculum & Methods	1. Language Arts 2. Social Studies 3. Mathematics 4. Science
7. Behavior Management	1. Managing Behavior.

Practicum Experience

The practicum consisted in many different activities, the majority of which centered upon classroom experience with supervision at Hillcrest. Other experiences included orientation, public school placement, residential placement, independent study, and evaluation days. An overview of the practicum follows and the different experiences are described briefly.

As noted earlier, the Psychoeducational Institute of Hillcrest Children's Center was chosen as the training center for the American University program. In addition to training and research components, the Psychoeducational Institute included pre-school, elementary school, and residential programs for children with severe learning and behavioral difficulties. Although the majority of the children were emotionally disturbed, the pupils attending the school and residence were not a homogeneous group and presented a wide range of psychoeducational problems.

For example, a survey revealed that (1) in terms of behavioral symptoms, 42% of the children were described as

hyperactive or hyperaggressive while 34% showed passive-aggressive or withdrawal patterns; (2) in terms of constitutional limitations, 28% had perceptual-motor handicaps while 14% had a primary impulse disorder; (3) in terms of learning problems, 40% had reading difficulties and 25% had arithmetic difficulties. Children in the pre-school program presented a combination of social, emotional and language handicaps. Hillcrest was located in the inner-city ghetto area of Washington, D.C., and 45% of the children in all school programs were inner-city residents.

Although the training sequence varied somewhat from year to year, an orientation program was held in September. Trainees were introduced to the facilities, programs and services available at Hillcrest Children's Center in both the Psychoeducational Institute (School and Residence) and the Clinical Institute (Department of Psychiatry, Children's Hospital of D.C.). They met with department heads, administrative officials, school faculty, and center staff who provided them with a comprehensive overview of Center functions. Classroom assignments, seminar lists, and daily schedules were distributed. Trainees worked out their independent study project, reviewed records of the children in their classes and planned their classroom assignments with master teachers, with whom they were to work daily throughout the year.

Beginning in late September and continuing into June, trainees spent approximately 45 hours per week at Hillcrest teaching and tutoring, attending seminars and conferences, and working on independent study projects. Two weekly schedules are presented below and these give some idea of the integration, if not saturation, of academic and practical experiences during the year. The schedules also indicate that classroom assignments changed from first to second semester. (Four students in the classroom during the mornings of the first semester rotated to afternoons in the second semester; and vice versa.)

Trainees were assigned in pairs to a particular class and master teacher. The nature of the classroom changed gradually as the year progressed. Early experiences were primarily observation and participation under direction. Later experiences were more properly "student teaching" as trainees assumed more responsibility for curriculum and lesson plans, for individuals and for groups. In the Spring of each year, trainees assumed full responsibility for classroom planning and program for a specified period of time (usually four weeks).

Throughout the year, trainees received supervision and feedback from staff members on the basis of both routine and request. Primary authority for overall supervision was that of the Director of Training. Because of on-the-job reality, however, the responsibility of daily supervision

Figure 2:

AMERICAN UNIVERSITY/HILLCREST TEACHER TRAINING PROGRAM
SCHEDULE A--1st SEMESTER

Section G—FRACTION

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30		Classroom Teaching	Seminar Child Develop. & Special Ed.	Classroom Teaching	Classroom Teaching
9:00	Psycho Ed. Teaching Conf.				
10:00			Classroom Teaching		
11:00	Classroom Teaching	(A.U.Cord.Mtg. Representative)			
11:30	Lunch with Pupil	Lunch with Pupil	Lunch with Pupil	Lunch with Pupil	Lunch with Pupil
12:00	*Time for Individual Schedules	*Time for Individual Schedules	*Time for Individual Schedules	*Time for Individual Schedules	*Time for Individual Schedules
1:30				Team Meeting Bi-weekly	
2:45	Collab. Meeting	Seminar Reading	Staff Conf./ Seminar Science Curric. (Alt. weeks)	Seminar Math Curric.	Supervision & Planning with Master Teacher
4:00	Seminar Behavior Management	Seminar Psycho Ed. Assessment	Seminar Process Group	Seminar Urban Education	
5:30					

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GREAT BOOKS SEMINAR MEETS EVERY THIRD MONDAY EVENING, 8:00-10:00 p.m.

Figure 2:
AMERICAN UNIVERSITY/HILLCREST TEACHER TRAINING PROGRAM
SCHEDULE A--1st SEMESTER

Tuesday	Wednesday	Thursday	Friday
Classroom Teaching	Seminar Child Develop. & Special Ed.	Classroom Teaching	Classroom Teaching
(A.U.Cord.Mtg. Representative)	Classroom Teaching		
Lunch with Pupil	Lunch with Pupil	Lunch with Pupil	Lunch with Pupil
*Time for Individual Schedules	*Time for Individual Schedules	*Time for Individual Schedules	*Time for Individual Schedules
		Team Meeting Bi-weekly	
Seminar Reading	Staff Conf./ Seminar Science Curric. (Alt. weeks)	Seminar Math Curric.	Supervision & Planning with Master Teacher
Seminar Psycho Ed. Assessment	Seminar Process Group	Seminar Urban Education	

*Individual Schedules:
Independent Study
Remedial Tutoring
Team Supervision
Video-Tape Review
Personal Feedback

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AR MEETS EVERY THIRD MONDAY EVENING, 8:00-10:00 p.m.

Figure 3:
AMERICAN UNIVERSITY/HILLCREST TEACHER TRAINING PROGRAM
SCHEDULE B--1st SEMESTER

SECTION G--PRACTICUM

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30			Seminar Child Devel. & Special Ed.		
9:00	Psycho Ed. Teaching Conf.	*Time for Individual Schedules		*Time for Individual Schedules	* Time for Individual Schedules
10:00			*Time for Individual Schedules	Team meeting Bi-weekly	
11:00		(A.U.Cord.Mtg. Representative)			
11:30	Lunch with Pupils	Lunch with Pupils	Lunch with Pupils	Lunch with Pupils	Lunch with Pupils
12:30	Classroom Teaching	Classroom Teaching	Classroom Teaching	Classroom Teaching	Classroom Teaching
1:30					
2:45	Collab. Meeting	Seminar Reading	Staff Conf./ Seminar Science Curric. (Alt. weeks)	Seminar Math Curric.	Supervision & Planning with Master Teacher
4:00	Seminar Behavior Management	Seminar Psycho Ed. Assessment	Seminar Process Group	Seminar Urban Education	
5:30					

GREAT BOOKS SEMINAR MEETS EVERY THIRD MONDAY EVENING, 8:00-10:00 p.m.

Figure 3:
AMERICAN UNIVERSITY/HILLCREST TEACHER TRAINING PROGRAM
SCHEDULE B—1st SEMESTER

Tuesday	Wednesday	Thursday	Friday
	Seminar Child Devel. & Special Ed.		
*Time for Individual Schedules		*Time for Individual Schedules	* Time for Individual Schedules
	*Time for Individual Schedules	Team meeting Bi-weekly	
(A.U.Cord.Mtg. Representative)			
Lunch with Pupils	Lunch with Pupils	Lunch with Pupils	Lunch with Pupils
Classroom Teaching	Classroom Teaching	Classroom Teaching	Classroom Teaching
Seminar Reading	Staff Conf./ Seminar Science Curric. (Alt. weeks)	Seminar Math Curric.	Supervision & Planning with Master Teacher
Seminar Psycho Ed. Assessment	Seminar Process Group	Seminar Urban Education	

*Individual Schedules:
Independent Study
Remedial Tutoring
Team Supervision
Video-Tape Review
Personal Feedback

NAR MEETS EVERY THIRD MONDAY EVENING, 8:00-10:00 p.m.

became that of the four master teachers, supported by the principal and assistant principal of the school. (In the third year of the program, 1971-72, the assistant to the training director assumed much of the supervisory functions of the assistant principal.) These six staff members were closest to the classrooms and, in effect, to the trainees in the classroom.

As was true of training sequence, the supervisory program varied from year to year. A review of schedules in 1971-72 provides a summary of practices for that year. Classroom observations of each student by the principal occurred twice weekly, at a minimum. These observations usually lasted for 20 minutes (average length of a lesson). Supervisory sessions by the principal were held once weekly; these may have included the student's master teacher as well. Observation of students by the assistant to the training director occurred once weekly for approximately 45 minutes. Feedback sessions were also scheduled once weekly; these may have included the student's co-trainee (in the same classroom). In addition to actual classroom observations, each student was video-taped in a teaching capacity for 20 minutes on a once-a-week basis. Videotapes were readily available for students to review privately or with their master teachers and supervisors. Tapes were also reviewed in certain seminars, especially the behavior management and four curriculum seminars.

Public School Placement was considered a critical phase of the practicum year. Students were usually placed with experienced, competent teachers who had classes of children with learning and behavioral problems. This experience provided each student the opportunity to work with another master teacher, in a public school setting, and with children whose problems were usually less severe than those of the Hillcrest pupils. In addition to being supervised by the special teacher in the classroom, each trainee was observed for two hours per week by the director of training, by the principal of the Hillcrest school, or by the assistant to the training director. As noted in the training sequence section, during the first two years of the program the public school placement occurred in September and again in January for three weeks in each instance. The placements were in a special program in Montgomery County, Maryland. During the third year of the program, the public school placement occurred in January for a four week period. Five of the students were in urban schools in Washington, D.C.; three of the students were in suburban Maryland schools.

For most trainees in the first two years, the residential experience took place during the second semester. In the third year, this experience was scheduled in the first semester. Trainees were assigned to the residence unit of a one week period on a 24 hour basis while they continued

classroom duties from 9:00 to 3:00. During this week students were under the supervision of the Director of the Residence and worked as members of his staff. Conferences were held prior to this practicum for purposes of orientation and structuring of learning. A debriefing conference was held after the practicum for purposes of feedback and evaluation of the experience. This particular "living in" experience, though brief, proved to be an intensive and rewarding aspect of the trainees' year. Playing, eating, and sleeping with the residence children and staff provided another dimension separate and distinct from classroom teaching.

Independent study projects were worked on throughout the year under the supervision of the training director or, in the third year, the assistant to the director of training. Projects for the trainees were varied and selected on the basis of interest as an "elective." Projects have included: work in the nursery school with a 4-year old presenting severe language development problems; work as co-therapist in a therapy group for boys, ages 12-14 years; tutoring in a laboratory school for children with learning disabilities; in-depth diagnosis and tutoring of a child in a local public school; keeping a diary of events and reactions during the year; recruitment of Black applicants for the training program.

Evaluation Days were scheduled at approximately six week intervals: the Hillcrest school and residence were closed for an in-service training and evaluation day. Total staff and the eight students met to assess individual and group progress of the students as well as to evaluate the entire training program. A basic assumption has been that student participation in program development is essential. Thus, these in-service days were also used to request program modification. The evaluation days have been instrumental in producing significant improvements in the total program. They also provided students with the opportunity to evaluate an on-going educational program and to assume responsibility for change.

PROGRAM EVALUATION

The Graduates

One year after completion of the American University teacher training program each group of trainees is contacted and interviewed. Information regarding their present positions is obtained and an attempt is made to keep a current record of each graduate from year to year. Two of the three groups of graduates (16 individuals) have been interviewed to date. However, knowledge of present positions is available on all three groups (24 individuals). Since completion of the training program, 18 of the 24 trainees have continued to work in the field of education. Of these 18 trainees, 5 are now working in administrative capacities. One of these is principal of a school for emotionally disturbed children, another is residence director of an institute for severely disturbed children, while a third is planning a residential treatment center. Of the remaining 2 trainees working as administrators, one is with a national office of education and the other is program director for an urban public school system. Thirteen past trainees are presently working as special education teachers, one of whom has already received a Ph.D. in Education. The types of handicapped children

served are delinquent, severely emotionally disturbed, learning disabled, and behaviorally disordered.

Three of the remaining 6 past trainees not currently working in education are continuing post-graduate studies at the doctoral level in education, clinical psychology, and medicine. The remaining 3 trainees are involved in various other activities which essentially represent a year off from both studies and work. The following table summarizes the present positions of the 24 graduates to date.

TABLE 1

PRESENT POSITIONS OF GRADUATES
Academic Year 1972-73

Present Positions	Number (N=24)
A. Continuing as Students:	
Undergraduate	
Post Baccalaureate	
Post Master's	3
B. Working As:	
Regular Classroom Teacher	-
Special Education Teacher	13
Supervisor or Administrator	5
Other	3
Total	24
Degree Obtained:	
Baccalaureate	-
Master's	23
Specialist	-
Doctorate	1
Total	24

COMPETENCY MEASURES

The literature on training programs for teachers of the emotionally handicapped abounds in references to competencies. Since the list of "68 competencies" first appeared (Mackie, et al., 1957), numerous articles have been written expanding, refining, up-dating, and re-ranking the necessary qualities, characteristics, and competencies needed by teachers of emotionally handicapped children (Dorward, 1963; Hewett, 1966; Bulloch & Whelan, 1971).

The implications of this literature for training programs have been clear: (1) a set of essential competencies can be designated as training objectives; (2) given the objectives, a program of curriculum and experience can be devised to teach the competencies; (3) given the objectives and the program, evaluation can be carried out to determine the extent to which trainees learn and the program is effective. The experience of the authors has been that, although the plan of action is clear, following a three-phase blueprint of objectives--program--evaluation is not an easy matter. As is true of other areas of living, things are simpler said than done.

The purpose of this paper is to report one attempt at evaluation in a competency-based program. Data will be presented to show trainee changes over time as well as their perceptions of the program. However, the major thrust of the paper is to describe both what was learned and the difficulties encountered in completing research. No model for evaluation is being offered. Rather, the shortcomings and pitfalls encountered over a three year period are reported as part of the lessons learned.

Instruments and Procedure

A large battery of tests was administered the three groups of 8 students before and after each academic year (June). These tests included measures of competencies, attitudes toward education as well as interpersonal and personality characteristics. Only the competency measures are described and reported in this section.

Two self-evaluation instruments were employed in the study. The one consisted of the seven training goals and 22 sub-goals which students used to rate themselves on a 9-point scale at five times during the year (June, September, December, February-March, and June). The second was a 137-item Specialized Proficiency Questionnaire which was identical in most respects to the 157 item Teacher Competencies Check List of Mackie at al.,(1957). Students rates themselves using a 5-point scale at the beginning and end of the academic year.

The one supervisory rating scale administered with some degree of regularity during the three years was adapted from a NIMH Project (Training of Teachers of Disturbed Preschool Children, MH 103880). The scale consisted of 42 items to be rated by an individual trainee's master teacher on a 7-point scale at two times in the academic year (October and June). Items were grouped on a rational basis into seven categories: involvement in program, orientation toward work with groups, orientation toward work with individuals, relating to children, behavior management, and teaching techniques. Other efforts were made to obtain supervisory ratings and staff evaluations of trainees but these were not consistent from year to year. Similarly, comprehensive examinations of seminar content varied from year to year.

A follow-up evaluation was completed for the first two groups of trainees one year after graduation from the program. This consisted in interviews of their administrator-supervisor (i.e., usually principal), interviews of the graduates, as well as ratings of the program by graduates.

Statistical Analysis

Analysis of data in this study was accomplished by non-parametric statistical tests (Siegel, 1956). Non-parametric tests were chosen, among other reasons, because the statistical analysis has been sequential and the N's

quite limited. Thus, many tables in the Results section report findings for the first year, for the second, for two years combined, for the third year, and for all three years combined. The Wilcoxin matched-pairs signed-ranks test was used for related samples as, for example, in the pre-post comparisons. The Mann-Whitney U test was used for independent samples as, for example, when different groups were compared. Only for the pre-post comparisons were one-tailed tests and associated probabilities used.

RESULTS

1. Pre-Post Comparisons

Self Evaluation of Skills.--Self ratings on the seven major training goals showed a mean increase in scores from pre- to post-testing. Table 2 summarizes the statistical analysis of these data by reporting the probability levels derived from the Wilcoxin Test for the different analyses.

TABLE 2

SELF EVALUATION OF SKILLS

Goals	1969-70 n=7	1970-71 n=8	1971-72 n=8	2 Years N-15	3 Years N=23
1. System Awareness	p.05	p.05	p.01	p.005	p.005
2. Personal Sensitivity	p.025	p.025	NS	p.005	p.005
3. Child Development & Special Ed. Concepts	p.025	p.01	p.005	p.005	p.005
4. Psychoeducational Assessment	p.025	p.005	p.01	p.005	p.005
5. Curriculum & Methods	p.01	p.005	p.01	p.005	p.005
6. Remedial Education & Reading	p.025	p.01	p.01	p.005	p.005
7. Behavior Management	p.01	p.005	p.025	p.005	p.005

As can be seen in the Table, the increase in "perceived effectiveness" was significant in 20 of the 21 pre-post comparisons for the three groups of trainees considered separately. The third year did not show a significant increase in Personal Sensitivity. When data are combined in the two-year and three-year analyses, significant increase is found for all seven training goals. As might be expected, these results clearly indicate that trainees perceived themselves as "more effective" in each competency at the end of the year than at the beginning.

Specialized Proficiencies Questionnaire.--Results for the S.P.Q. are similar to those for self evaluation on training goals although fewer significant increases were found when the three sets of data were analyzed separately. Only 19 of the 24 pre-post comparisons yield significant results as seen in Table 3. However, both the two-year and three-year comparisons show significant increase in all eight scales of the S.P.Q.

Supervisory Ratings. Significant differences in supervisory ratings were not found in any of the three groups when separate analyses were made. Two of the scales (Involvement and Teaching Techniques) were not found to be significant for either the 2 year or 3 year combined analyses. The Management scale was shown to have a significant increase for the 2 year combined analysis but not for the 3 year

TABLE 3

SPECIALIZED PROFICIENCIES QUESTIONNAIRE

Scale	1969-70 n=7	1970-71 n=8	1971-72 n=8	2 Years N=15	3 Years N=23
1. Knowing the Child	p.025	p.05	p.005	p.005	p.005
2. Curriculum, Materials & Methods	p.025	p.025	p.005	p.005	p.005
3. Testing & Psychoeducational Diagnosis	p.05	p.01	p.01	p.005	p.005
4. Guidance & Therapeutic Procedures	p.01	p.025	p.01	p.01	p.005
5. Teacher as a Professional Team-Worker	p.01	NS	NS	p.005	p.005
6. Parent & Public Relations	NS	NS	p.025	p.05	p.005
7. Teacher as a Person	p.025	NS	p.005	p.01	p.005
8. Personal Behavior Characteristics	p.025	p.05	p.01	p.005	p.005

*Probabilities equal to or less than those reported

combined data. The most encouraging results are seen in those areas related directly to working with children, i.e., Group Orientation, Individual Orientation and Relating to Children. These 3 scales are shown to be significant for both the 2 year and 3 year combined analyses. These results are summarized in Table 4, which also reports the statistical results of a separate analysis for 14 trainees who had the same supervisor rate them pre- and post (cf. Section on Data Collection).

TABLE 4

MICHIGAN SUPERVISOR RATING SCALE

Scale	2 Years	3 Years	"14"
1. Involvement			
2. Group Orientation	p=.0294	p=.0274	
3. Individual Orientation	p=.0143	p=.0110	p=.0250
4. Relating to Children	p=.0132	p=.0384	
5. Management	p=.0537		p=.0281
6. Teaching Techniques			

*Wilcoxin (exact) 1 tail.

2. Posttest Comparisons

It is clear that trainees perceived themselves as more effective at the end of the year than at the beginning. For example, the pre-post comparisons for both the Self-Evaluations and the S.P.Q. result in highly significant differences for all the goals and scales of the two instruments. Two additional questions were asked of these self ratings: (1) Did trainees perceive themselves as more effective in certain skills rather than others? Specifically, were there differences among the goals at the end of training? (2) Did the self reports indicate any differences among the 3 groups of trainees at the end of training? Specifically, did the S.P.Q. reveal differences among the three groups?

Differences among the goals.--Table 5 presents the mean rating associated with each goal at the end of the year for each group of trainees and for all three groups of trainees combined. As can be seen in the table, a definite rank order of the goals exists and this order is remarkably similar from year to year. Goals 1, 2, and 7 receive the highest ratings whereas Goals 3, 4, and 6 receive the lowest (lower the score, higher the rating). Goal 5 appears to reside between these two clusters.

TABLE 5

MEAN RATINGS OF GOALS AT END OF THE YEAR

Goals	1969-70	1970-71	1971-72	3 Years
1. System Awareness	2.3	3.3	2.5	2.72
2. Personal Sensitivity	2.0	2.8	2.5	2.45
3. Child Development	2.7	3.9	3.75	3.48
4. Psychoeducational Assessment	2.8	4.0	3.63	3.51
5. Curriculum and Methods	2.9	3.8	2.75	3.16
6. Remedial Education and Reading	3.8	4.1	3.69	3.87
7. Behavior Management	2.[illegible]	3.4	2.13	2.56

Statistical analysis of these data was made by comparing the ratings of each goal with every other goal. Again, the nonparametric Wilcoxin Test was used. (Unfortunately,

raw data for the first group of trainees were not available for this analysis. Thus, data for only 16 trainees were used.) Results of these multiple comparisons are consistent with conclusions reached by inspection of Table 5. Goals 1, 2, and 7 do not differ significantly among themselves, while each is significantly different from each of Goals 3, 4, and 6 which also do not differ among themselves. (In the case of significance, $p < .05$, two-tailed test.) Goal 5 is significantly different than only Goal 6 ($p < .02$).

In summary, at the end of the academic year, trainees see themselves as more competent in the areas of system awareness (1), personal sensitivity (2), and behavior management (7) than with the areas of child development (3), assessment (4), and remediation (6). As for curriculum and methods (5), trainees rate themselves more competent in this area than in remediation (6).

Differences among the trainees.--Table 6 reports the mean ratings associated with each scale of the S.P.Q. for each of the three groups of trainees, at the end of their respective years. Inspection of the mean scores reveals consistent differences among the three groups of trainees (higher the score, higher the rating). The first group of trainees (1969-70) receives the highest rating on each S.P.Q. scale; the second group (1970-71) receives the lowest rating on each scale; and rating for the third group (1971-72) falls between

the other two. Differences among the three groups are statistically significant (Kruskal-Wallis one-way analysis of variance). These results apparently stem from the highly significant differences between the first and second group of trainees where $p < .002$ in 5 of 8 comparisons (Mann-Whitney U Test).

TABLE 6

SPECIALIZED PROFICIENCIES QUESTIONNAIRE
MEAN DIFFERENCES: POST

Scale	1969-70 n=7	1970-71 n=8	1971-72 n=8	Mann Whitney p score	Kruskal-Wallis p score
1. Knowing the Child	4.21	3.30	3.82	.002	.01
2. Curriculum, Materials, & Methods	4.27	3.46	3.99	.020	.01
3. Testing & Psycho-educational Diagnosis	4.11	3.11	3.67	.001	.01
4. Guidance & Therapeutic Procedures	4.12	3.13	3.65	.002	.01
5. Teacher as Professional Team-Worker	4.14	3.36	3.70	.001	.02
6. Parent & Public Relations	3.88	3.08	3.50	.010	.05
7. Teacher as a Person	4.61	3.74	4.18	.002	.02
8. Personal Behavior Characteristics	4.55	3.70	4.04	.010	.05

The higher the score on the S.P.Q., the "more confident" the trainee feels about his ability on a particular item or scale. Thus, it is clear that the first group of trainees felt more confident about their skills in all areas measured by the S.P.Q. than did the second group. These results pertain to the end of the year only. (At the beginning of the year, a significant difference between these two groups was found on only one scale--Personal Behavior Characteristics.) Reasons for this discrepancy are investigated in the Discussion section.

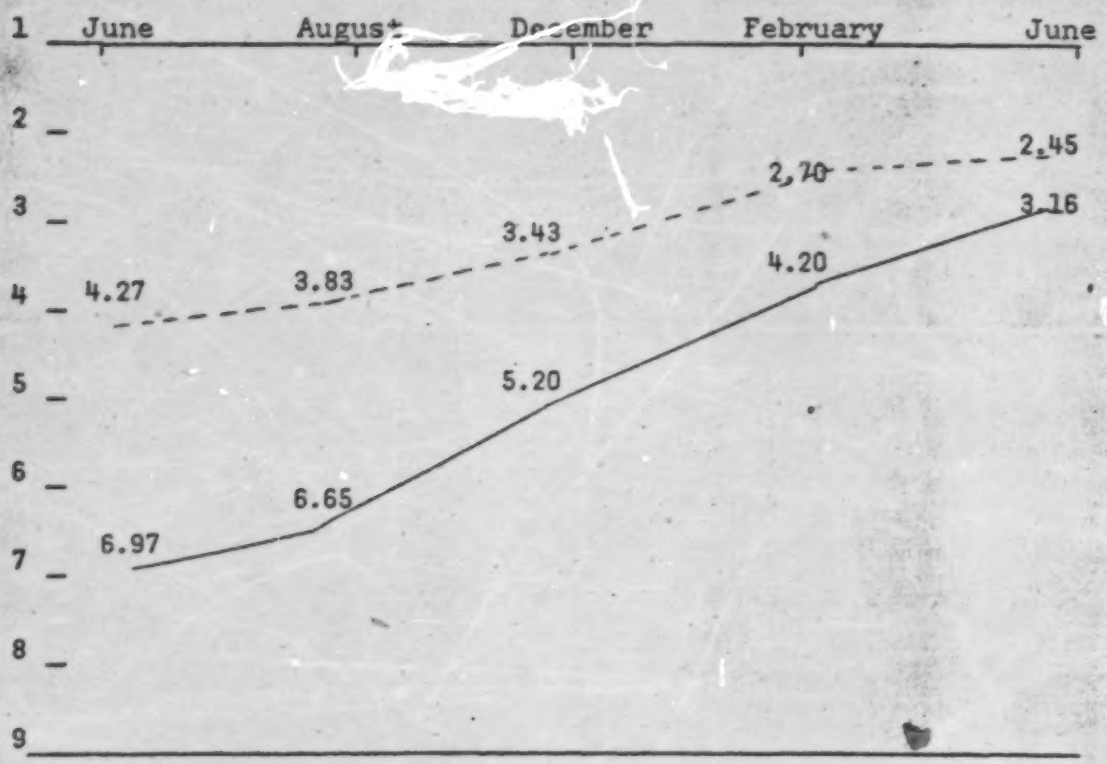
3. Process Comparisons

Sequential Evaluations. Another use of the Self-Evaluation of Skills data can be seen in Figure 4, which plots the mean scores of the 23 students for Goals 2 and 6 across the five evaluation periods. This figure compares self reports of competency in personal sensitivity and curriculum and methods on a sequential basis.

At pre-test for each year the trainees rated themselves "above average" in the area of Personal Sensitivity, and "below average" for Curriculum & Methods skills. (It should be noted that the majority of trainees had no previous educational courses or experience.) By December, the trainees saw themselves as strongly sensitive and with average curriculum and methods skills. At posttest Personal Sensitivity continued to rate higher than Curriculum &

Methods, although the greater improvement is seen in the latter (as shown by the steeper slope), and both are rated as being strong skills--above an "acceptable" level of skill for a teacher of emotionally handicapped children.

Figure 4. Self Evaluation of Skills
3 Years Combined--X Scores



Personal Sensitivity ------ Curriculum & Methods _____

In the case of other training goals, the sequential ratings, when plotted, correspond more to curriculum and methods than to personal sensitivity. Thus, during the first

3 months of the training program (June-August) the trainees see themselves as making only a slight increase in their skills-level for the major training goals. This initial period after entering the training program is spent on the American University summer campus where the trainees are involved with three classroom courses. The actual practicum experience, involvement with the children and, consequently, the increases in skill-level begin after August when the trainees are brought into the school setting. The exception to this general pattern is seen in the area of Personal Sensitivity (as noted above). Also, Child Development & Special Education Concepts and Psychoeducational Assessment, both of which are areas of study in the summer school session, show a slight increase over the initial 3-month period.

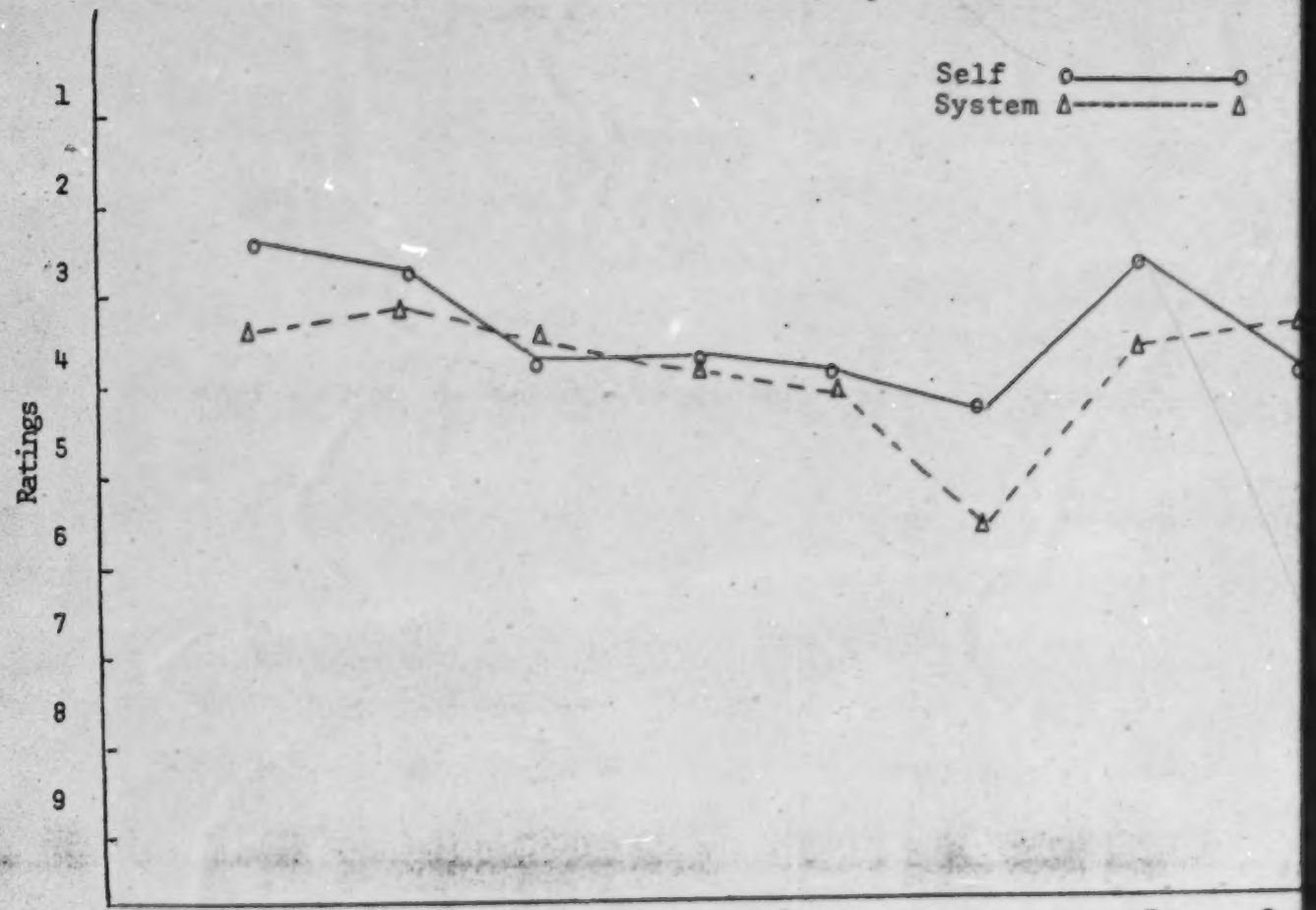
Self vs. system.--At the mid-point of the third training year (February, 1972), the Self Evaluation of Skills was used as a means for comparing supervisory ratings of the trainees with the trainees' self evaluations in regard to the 7 major training goals. Each trainee was rated on each goal, the 22 sub-goals, and "general effectiveness" by his master teacher, by the Assistant to the Training Director (who worked in close contact with the trainees throughout the year) and by the seminar leader(s) whose course was centered on a specific training goal.

The self-system ratings were analyzed and used in several ways. For example, individual graphs were plotted for each trainee showing his ratings and the composite system ratings (mean scores of the supervisors) for the 7 training goals and for "general effectiveness." The variability among the supervisors was also shown on the graph. Individual feedback sessions were held with each trainee and his supervisors. In these sessions the two sets of ratings were compared, discrepancies between trainee and system (as well as variability within the system) were discussed, and recommendations for the second half of the year were made.

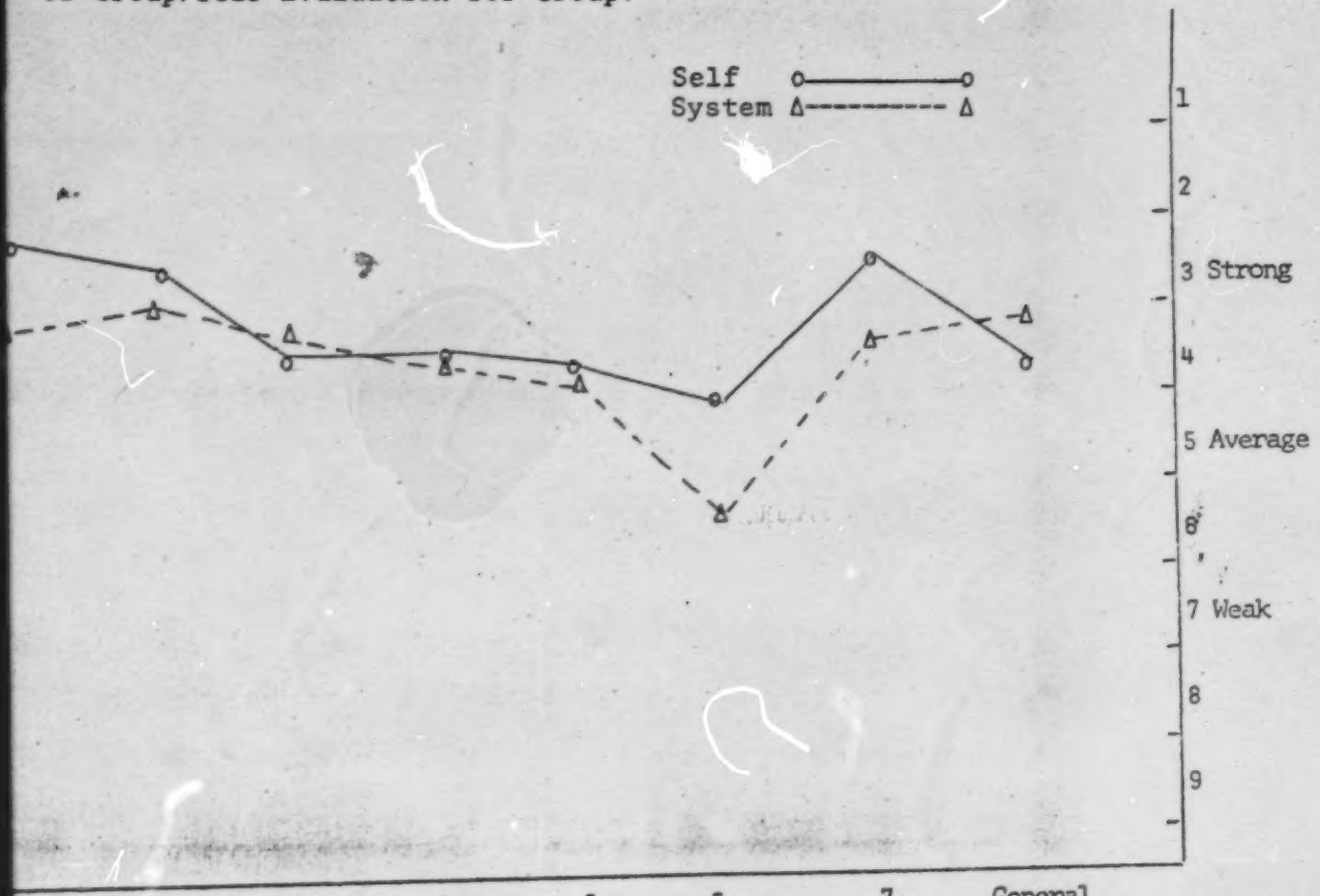
As might be expected, ratings of some trainees were remarkably similar to those of the system while the ratings of others were quite discrepant. Similarly, some trainees elicited less variability among their supervisors while others provoked a good deal of disagreement. Finally, the 7 goals were associated with varying degrees of variability. This issue of variability will be reported in greater detail in a following section on Data Collection.

The group mean scores of the trainees were also compared with the combined mean scores of the system (i.e., the supervisors) and these are plotted in Figure 5. As can be seen in the figure, trainees tended to rate themselves more favorably on Goals 1, 2, 6, and 7 than did the system.

Figure 5: System Evaluation & Feedback Training Goals. System Evalu
of Group/Self Evaluation for Group.



System Evaluation & Feedback Training Goals. System Evaluation of Group/Self Evaluation for Group.



Mean ratings for Goals 3, 4, and 5 were remarkably similar; while the system rating of "general effectiveness" was somewhat higher than the trainees' rating on the same variable. (Statistical analysis of these data was not made. In all probability, observed mean differences are not significant because of the small number of ratings from the system--n=3 or 4--and the variability in both sets of scores.)

4. Follow Up

Separate interviews are held with trainees and with their supervisors one year after graduation for the program. (In most cases the supervisor is the principal of an elementary or special education school.) To date, the first two groups of graduates have been "followed" in June, 1971, and in June, 1972.

Supervisory Interviews.--Supervisors of 5 of the first year graduates were contacted in 1971; however, supervisors of all 8 second year graduates were reached in 1972. They were asked to evaluate the former trainees' general "on the job functioning." Reported comments were very favorable. Phrases such as "excellent, successful, concerned, creative, initiates follow-up and involvement, and relates well to both children and adults" were common. Two trainees, who graduated in the second class, were

described as having had some initial difficulty, but both had shown tremendous growth and significant progress from the beginning of the year.

Compared to other teachers trained in Special Education, 7 of 13 past trainees were rated by their present supervisors as "excellent, above average, or superior." Four were rated as "favorable." One graduate (from the second year) was rated as "better academically," but as having poor behavior management skills. This particular student was presently teaching a special education class of older boys, having been trained in the area of younger children. One supervisor expressed that a former trainee "could be more systematic and dress more professional."

When asked to express the "strengths" of the former trainees, supervisors were favorably impressed by their strong interest, concern and understanding of children's emotional needs. Several graduates had introduced new methods and activities into the school, which were obviously appreciated. Graduates were reported as being liked and respected by other staff members and they were able to accept criticism and inaugurate change. Generally, they were "objective, consistent, cooperative, self-confident and not threatened by impulse-controlled children."

"Weaknesses" were expressed in more specific terms and often concerned personality variables. Three graduates

from the second year and one from the first were said to have weaknesses which were related to their strengths. For example, comments made by the supervisors included: "expectations too high ... leads to disappointment; criticises self too harshly for unfavorable results; standards so high it is difficult for him to meet his own demands; almost compulsive in pursuing action." Other areas of weakness were related to specific job functions and competencies, such as in remediating perceptual difficulties and in psychoeducational assessment. Only one supervisor expressed general dissatisfaction with a trainee's previous training and experience.

Perceptions of Graduates.--At the time of the follow-up interviews, graduates were asked to complete two rating scales both of which pertained to the training goals. On one scale they addressed the question: "How relevant are the training goals for your present position?" On the other was the question: "How well did the A.U./Hillcrest program train you in each of the areas?" The objective in both cases was to assess trainees' perceptions of the program and its goals one year after graduation.

Table 7 presents the rank order of goals based on the graduate ratings in response to the two questions. As seen in the table, the same three goals elicited the highest ratings. Goals 1, 2, and 7 were considered "most

relevant" to present position as well as the areas in which the program had been "most effective."

TABLE 7

RANK ORDER OF GOALS ON THE BASIS OF RESPONSES TO THE TWO FOLLOW-UP QUESTIONS

Relevance	Program Effectiveness
2. Personal Sensitivity	7. Behavior Management
1. System Awareness	2. Personal Sensitivity
7. Behavior Management	1. System Awareness
3. Child Development/Special Education	6. Remedial Education
6. Remedial Education	5. Curriculum/Methods
5. Curriculum/Methods	4. Psychoeducational Assess.
4. Psychoeducational Assess.	3. Child Development/Special Education
2,1,7 significantly different than 5,4.	7,2,1 significantly different than 6,5,4,3.
$p < .01$	$p < .05$

In the case of the question pertaining to relevance, statistical analysis of the ratings revealed that Goals 1, 2, and 7 did not differ among themselves but each were significantly different than Goals 4 and 5, which did not differ between themselves. Goals 3 and 6 fell mid-way between the two sets in terms of rank order but did not differ significantly from any other goal.

In the case of the question pertaining to program effectiveness, statistical analysis revealed two different

sets of goals. Thus, ratings for each of Goals 1, 2, and 7 were significantly different than the ratings for 3, 4, 5, or 6. There were no differences among goals in each set.

In summary, the first two groups of graduates perceived competency in system awareness (1), personal sensitivity (2), and behavior management (7) as most relevant to their present positions compared to other goals. They considered curriculum and methods (5) and (4) as least relevant. Child development (3) and remediation (6) were not discriminated from the other goals.

Regarding the question of problem effectiveness, graduates clearly differentiated between two sets of competencies. In essence, they felt the program provided more effective training in those areas which they also considered most relevant: namely, system awareness (1), personal sensitivity (2), and behavior management (7).

These data are remarkably similar to end-of-year results reported earlier: i.e., at posttest trainees perceived themselves as more competent in Goals 1, 2, and 7 than in 3, 4, and 6. Thus, a consistent finding emerges. Upon graduation trainees feel most competent in system awareness, personal sensitivity, and behavior management. One year after graduation they perceive these same competencies as most relevant to job functioning and consider the program most effective in training for these competencies.

Graduate Interviews.--In addition to the supervisory interviews and the rating scales, interviews were also conducted with each graduate at follow-up. Questions were asked to elicit their opinions of program strengths and limitations from the vantage point of one year after graduation.

Content analysis of the interviews revealed agreement on a number of strengths or assets of the program from both groups of graduates. Chief among these were the following: (1) The practicum experience offered by the program. (The fact that trainees had had experience with children appeared to them to be a definite plus.) (2) The emphasis in the training center on understanding the dynamics of an individual child with problems together with the emphasis on designing therapeutic solutions to problems. (3) The flexibility of the system primarily in terms of responding to trainees' needs by adapting the program; (4) The seminar in remedial education (reading). (This particular seminar was singled out by many graduates as an invaluable experience for them.)

A second "cluster" of assets of strengths was designate --perhaps less frequently than the first or in less glowing terms. Among these were the experience in the process group (seminar in group behavior); the opportunity and stimulus to learn more about adult relationships and to grow interpersonally; and the commitment and work of the Master Teachers.

There were three "weaknesses" or "limitations" in the program that were clearly designated by the trainees one year after graduation. The first of these related to the lack of support and resources that graduates encountered in their work settings. They felt that the program had not alerted them to the problems or not prepared them to work without the support of a "therapeutic team" in the educational systems. A second criticism concerned the summer session on campus, which trainees considered too traditional or too academic. The third complaint was that still more emphasis should have been given to teaching techniques and content--both in classroom curriculum and in individual remediation.

As with the strengths, there was a second cluster of weaknesses which appeared less frequently or less emphatically in the graduates' interviews. Most of these focused on the need for "more"--more supervision and feedback, more opportunities to assume responsibility, more pressure from staff to evaluate oneself, more experience with children on an individual basis, more understanding and skill in working with the group process presented by children in classrooms, more time for personal development. A criticism was also leveled at the problems inherent in the "system," at staff dynamics, as these hindered program efforts and trainees' learning.

Discussion

Self-Evaluations.--What is most obvious, perhaps, from these results is the abundance of data demonstrating significant improvement in competencies as perceived by trainees. This abundance of self-evaluative data contrasts sharply with the dearth of evaluations by others--not only in terms of quantity but also in terms of a proportional number of significant changes. Still, our feeling is that the self-evaluation data were indeed worthwhile and provided valuable feedback to the system. For example, trainees' views of their competencies often became a sensitive barometer of their feelings about themselves and where they were at a particular point in the training sequence. Thus, a "February slump observed in one year could be anticipated in the next."

Differences between groups of trainees were also noted as, for example, those summarized in Table 4. The first group of trainees (academic 1969-70) definitely saw themselves as more competent than the second group (academic 1970-71) at the end of the training program. Several interpretations of this result could be made. One is that the trainees' evaluations mirrored staff enthusiasm. Thus, the sparkle of a program in its first year may have been tarnished somewhat by the working through of reality issues in the second year. And trainees' self-evaluations for the two years corresponded to the decrease in enthusiasm and the increase in reality.

Trainees' ratings of their competencies could also be taken at face value. Under these conditions they revealed differential attainment of goals and, in so doing, described program strengths and weaknesses or, at the least, program emphasis. For example, upon graduation trainees saw themselves as more competent in the areas of personal sensitivity, system awareness, and behavior management than they did in psychoeducational assessment, remedial reading, and child development. The three goals or competency areas of personal sensitivity, system awareness, and behavior management were again spotlighted on follow-up of the graduates. These three were seen as "most relevant" to on-the-job functioning. The program was seen as "most effective" in training in these three areas.

A final point in favor of the self evaluations concerns their usefulness in comparing the perceptions of trainees and staff (cf. "self vs. system" analysis). Use of the self ratings in formal sessions with individual trainees and staff became a valuable tool in the evaluation and feedback cycle. Designating a specific time of year (usually March) to compare the perceptions of self and other--to focus on assessment--had the advantage of keeping everyone honest and not allowing feedback to attenuate during the year or, worse yet, to be forgotten until the end of the year.

In summary, our feeling has been that self ratings are extremely useful in the overall scheme of research. Although they are certainly not the total answer in evaluating a competency-based program and its trainees, they provide a great deal of information. They have told us much about our program as well as about our trainees and graduates.

Research Design and Data Collection.--Despite the utility of the self ratings, it is clear that the research design was inadequate in planning for independent evaluations within the training system. It was also beset by problems in data collection and in the variability among the ratings obtained. The attempt was certainly made to include supervisory ratings (i.e., Master Teachers) as a pre-post measure in this research. However, it was impossible to ensure that the supervisor who rated a particular trainee at the beginning of the year would also rate that person at the end of the year. In fact, only 14 of the total 24 trainees from all three years were rated by the same supervisor twice (cf. Table 4 in Results section).

Collection of data from the same rater may have been better planned for and more vigorously pursued. Still, there remain the inevitable program changes and supervisor transfers which complicate data collection. There also remains the problem of variability among the raters: e.g., differing "frames of reference" for items on a rating scale,

different expectations for trainees in terms of "competent" vs "highly competent," differing behaviors revealed by trainees in the presence of one rater as opposed to another. Also, when supervisor and trainee are intimately involved in a relationship--such as that of master and student teacher working with "disturbing children" in the same classroom--the effects of this interaction on objective ratings are probably legion.

The difficulty of collection of data was also increased due to the lack of a "testing environment" in which the supervisors rated the trainees, in addition to the intrinsic resistance of teachers toward evaluation. Most master teachers had difficulty finding the time in their daily schedules to sit down and properly rate the trainees. The rating scale became a burden as they felt unable to disregard other responsibilities in order to complete the ratings. The ratings were made at the beginning and end of the year--busy times in any teacher's life.

Even in the area of self evaluations, difficulties arose. In the first year of the training program (where n=7), data were lost because of a Conscientious Test Objector. What effect his refusal to complete "required testing" had on responses of other trainees is not clear. However, his refusal could hardly have been missed and the effect was most probably experienced at some level as

resentment toward the tests. (A more frequent occurrence than the Conscientious Test Objector may well have been the passive-aggressive test taker who, wittingly or unwittingly, provided data of dubious value.) Whatever the reaction of the training director and/or research staff to the C.T.D., one has the decision to make of drawing a disjunctive line (either take the tests or leave the program) or of granting "special privileges" to one member of a group.

The descriptive data obtained from follow-up interviews of supervisors and administrators were encouraging in that many positive responses were made regarding trainees after their first year on-the-job. Nevertheless, testimonials are fairly easily garnered but "harder data" are just that--harder to come by. Inclusion of a rating scale would not by itself have ensured the hard data; however, it could have been a step in the right direction, particularly if those outside the system were rating the goals and objectives of the program.

Another apparent weakness of the follow-up data from "independent sources" was that only seven of twelve trainees were, in fact, rated by independent sources. Six of sixteen were employed at the teaching center during their first year on the job and thus evaluated by staff personnel. Such an occurrence would be unlikely in a more traditional university program. However, as more training programs become housed

in clinical centers as opposed to the university classroom, such an occurrence may become more frequent. The result being fewer independent observations from the consumer.

A final comment on these results concerns the issue of teacher competency vs effectiveness. As noted by Scheuer (1971) the two terms are not synonymous nor does the first necessarily lead to the second. One of the best times to obtain measures of trainee effectiveness is during the on-the-job situation of the first year when much behavior is still contingent upon the training program. Again, the responses of principals in this study was encouraging as indeed they felt many trainees were highly effective in their positions. Still no measures of teacher-pupil rapport, or of classroom organization or of children's learning and development were attempted. Indeed, the thought of effectiveness measures elicits a thought or two about control group (as in "effective compared to whom?"). An experimental control design was not used in this study though it obviously made sense to do so and even though one trainee had asked some years ago, "who's my control group?"

Implications

A clear guideline for the future is to reduce the variability in both self evaluations and supervisory ratings. Program objectives (competencies-to-be-learned) must be expressed more precisely and defined more operationally. Greater

efforts at supervisor training in rating behavior must also be made. In the case of multiple raters, pre-training sessions to establish common frames of reference for variables and common expectations for trainees should be routine. Scheduling of time for master teachers to complete ratings free of other duties is necessary yet not always a simple matter in the workday world with emotionally disturbed children. Use of video-taped vignettes could be used to reduce variance provided the sequences are held as constant as possible (e.g., teaching a class lesson, tutoring an individual, crisis intervention) and identical groups of raters are used to evaluate the sequence.

In concluding, it seems advisable to set down a number of principles which have evolved during the course of our three years in program development. These pertain, of course, to the evaluation process only.

1. The first principle has been that program and program development take precedence over research design. What this means in practice is that many changes will be made from year to year. Some of these have little effect on evaluation procedures (e.g., modifications in the selection process). Others have direct bearing (e.g., change in supervisor). Also a great deal of "research activity" is devoted to immediate concerns of the staff and trainees (e.g., evaluation of administrative roles and functions; input into the observations;

evaluation of feedback process between staff and trainees; assessment and refinement of the selection process).

2. The second principle has been that people take precedence over research. People in this instance refers to trainees as well as staff and pupils. Perhaps the best example of this principle occurred in the first year of the program when our Conscientious Test Objector was encountered. In this case a decision was comfortably made not to exclude the C.T.O. from the program: i.e., a promising trainee was "saved" at the expense of research data lost.

3. The third principle has been that research and evaluation are not limited to tests, ratings, measurement and statistical analysis. In fact, these tools and products may lull a program to sleep through periods of needed self analysis. Program evaluation to be meaningful usually demands more pain than mere testing and rating. Confrontation within the system (e.g., staff with trainees, trainees with staff) leading to catharsis and change is often required. Our vehicle for this type of research has been the Evaluation Day.

4. The final principle has been that research, like learning, doesn't end with graduation. We are aware that more extensive use of independent evaluators could be made. For example, administrators and supervisors of trainees in their first placement should provide valuable feedback to the program as regards both competency and effectiveness. However,

the graduates, after a year or two away from the training institution, are a significant source of data about both themselves and the program. With experience and perspective their evaluations are no longer those of trainees rating self. Rather, they are more like interested, and independent, colleagues rating us.

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PERSONALITY MEASURES

In addition to the competency measures administered pre and post, a number of attitudinal and personality tests were used. The reasons for inclusion of non-competency measures were threefold: (1) to determine program effects on personality variables of trainees; (2) to learn more about the trainees themselves as well as to compare the three groups; (3) to learn something about the measures used and their utility for further research.

Instruments and Procedure

A large battery of tests was administered each group of 8 students before and after each academic year (June). These tests included measures of competencies, attitudes toward education as well as interpersonal and personality characteristics. All but the competency measures are described and reported in this paper.

Instruments considered to be measures of attitudes toward education included: the Minnesota Teacher Attitude Inventory (Cook, Leeds & Callis, 1951), which is designed to sample opinions about teacher-pupil relations; the VAL-ED, a FIRO scale (Schutz, 1962), which related to personal attitudes and values toward various aspects of education; the

Teacher Practices Questionnaire (Sorenson, Husek, & Yu, 1963), which is a method of studying the teacher's (trainee's) indicated actions under certain classroom problem situations; and the Problem Behavior Analysis in which specific classroom behaviors are described and the trainee rates each item according to what he anticipates will be the frequency of occurrences of that behavior in his classroom as well as his personal reaction to the behavior.

The three instruments employed as measures of interpersonal characteristics were the FIRO-F and the FIRO-B (Schutz, 1967) which explore the typical ways in which the student feels about people and interacts with people (respectively), and the Communication of Feeling Inquiry (COFI) (Wallen, 1968), in which the rater is asked to distinguish between sentences that convey feelings by describing specifically what the speaker is feeling, and sentences that convey feelings but do not describe what the speaker feels.

Personality characteristics were measured by the Adjective Check List (Gough & Heilbrun, 1965) and the California Psychological Inventory (Gough, 1956).

Statistical Analysis

As was the case with the competency measures, analysis of these data was made by non-parametric statistical tests (Siegel, 1956). The Wilcoxin matched-pairs signed-ranks

test was used for related samples; the Mann-Whitney U test was used for independent samples. All tests of significance were two-tailed.

RESULTS

1. Attitudes Toward Education

Minnesota Teacher Attitude Inventory.--The M.T.A.I. consists of 150 items for which the rater is asked to state levels of agreement or disagreement about teacher-pupil relations. One score is derived from the 150 items. No significant changes in the trainees' opinions were found comparing beginning and end-of-the-year ratings.

VAL-ED.--Significant results with the VAL-ED have been limited to the first group of trainees (1969-1970 graduates). At post-test this group showed a significant change on the "Mind" scale, indicating that the school should concern itself less with developing the mind of the student and more with developing his whole personality. The first year trainees also showed a significant change on the scale regarding Teacher-Child: Control. At end of the year trainees felt less strongly that "the teacher should regulate completely classroom lessons and activities." These results pertained only to the first group, however. Similar results were not found for subsequent groups nor in either the 2-year or 3-year analyses.

Teacher Practices Questionnaire.--Although neither of the first two years showed significant change on the five T.P.Q. scales, an analysis of the two years combined produced a significant increase ($p < .05$) in the attitude that the teacher's role as a counselor is "appropriate"; i.e., "he seeks basic underlying cause of behavior and helps the student to see various courses of action and to think independently."

Trainees graduating in the third year (1971-1972) did not show similar results, although, interestingly it was found that this group rated higher on the Advice-Information Giver scale, expressing that this role is less appropriate; i.e., "the teacher should not use experiences and knowledge to advise a course of action, solve the problem and make the decision for the student."

Problem Behavior Analysis.--Combined analysis of the first two training years indicated that trainees felt less personal disturbance from overt, aggressive behavior of children. This finding was also obtained in the third training year and in analysis of the three years combined (see Table 8).

It was also found that the third group of trainees expressed that, at the completion of training, they were less disturbed by a child's oppositional behavior and deviations in social behavior.

TABLE 8

ATTITUDES TOWARD EDUCATION PROBLEM BEHAVIOR ANALYSIS

Scale	1969-70 n=8	1970-71 n=7	1971-72 n=8*	2 year n-15*	3 year n=15*
1. Oppositional Behavior (reaction)			p .01		
2. Overt, Aggressive Behavior (reaction)			p .02	p .01	p .01
3. Deviations in Social Behavior (reaction)			p .05		
4. Oppositional Behavior (frequency)					
5. Overt, Aggressive Behavior (frequency)					
6. Deviations in Social Behavior (frequency)					

*All changes are in the direction of being less disturbed about the particular behavior.

2. Interpersonal Scales

FIRO-F.--An interesting finding from the FIRO-F scale appears in the analysis for the three years combined. It seems that after completion of the training program, trainees see others as less "lovable"; others express less affection. It is also found that the trainees see others as less competent, they express less trust for others.

FIRO-B.--No significant changes were found on any scale of the FIRO-B scale.

Communication of Feeling Inquiry.--The COFI consistently showed an increase of skill in communication of feelings upon the completion of training for the first year's analysis, the first two years combined and the three years combined.

3. Personality Characteristics

California Psychological Inventory.--Results derived from the C.P.I. for the first year trainees (1969-1970) show a decrease in ratings from pre- to post-testing periods. Significant differences were found for the scales of Sense of Well-Being, Responsibility, Socialization, Self-Control, and Good Impression ($p < .05$, in all cases).

Analysis for the second year trainees (1970-1971) showed that this group generally rated higher at post-test. Significant results were found for the scales of Sociability ($p < .02$), Tolerance ($p < .05$), Achievement via Conformance ($p < .05$), and Achievement via Independence ($p < .05$ for the second year and for the two years combined).

Looking at the data for these two years, what first appears to be contradictory results is, in actuality, a reasonable outcome of the program. The first year began at pretest with relatively high ratings and decreased to lower scores at posttest. The second year scored relatively lower at pretest and higher at posttest. Statistical comparison of the C.P.I. data for first and second year

trainees (Mann-Whitney U Test) demonstrated a regression toward the mean. Thus, at pretest the first year trainees score significantly higher than the second year trainees on seven separate scales; whereas, at posttest they score higher on only two scales (Sociability and Social Presence). The third year trainees did not show significant changes from pre- to posttesting.

The combined C.P.I. profile for the three groups of trainees at graduation is presented in Figure 6. A look at the combined mean scores for the three training years shows a general trend of the trainees to rate themselves lowest on scales regarding social norms and values. The lowest of these (Responsibility, Good Impression, and Socialization) identify behaviors which are somewhat cautious, defensive, and disbelieving of the structuring of social values. The characteristic manner just described may also be seen by noting the high scores found in Flexibility and Psychological-Mindedness. Here, the trainees' broad attitudes toward life express themselves as being verbally fluent toward the inner needs, motives and experiences of others, while being rebellious toward rules, restrictions and constraints. The trainees might be described as opinionated, with a high degree of adaptability of thinking and social behavior.

Scales regarding feelings of interpersonal and intrapersonal adequacy show the highest ratings for Self-Acceptance

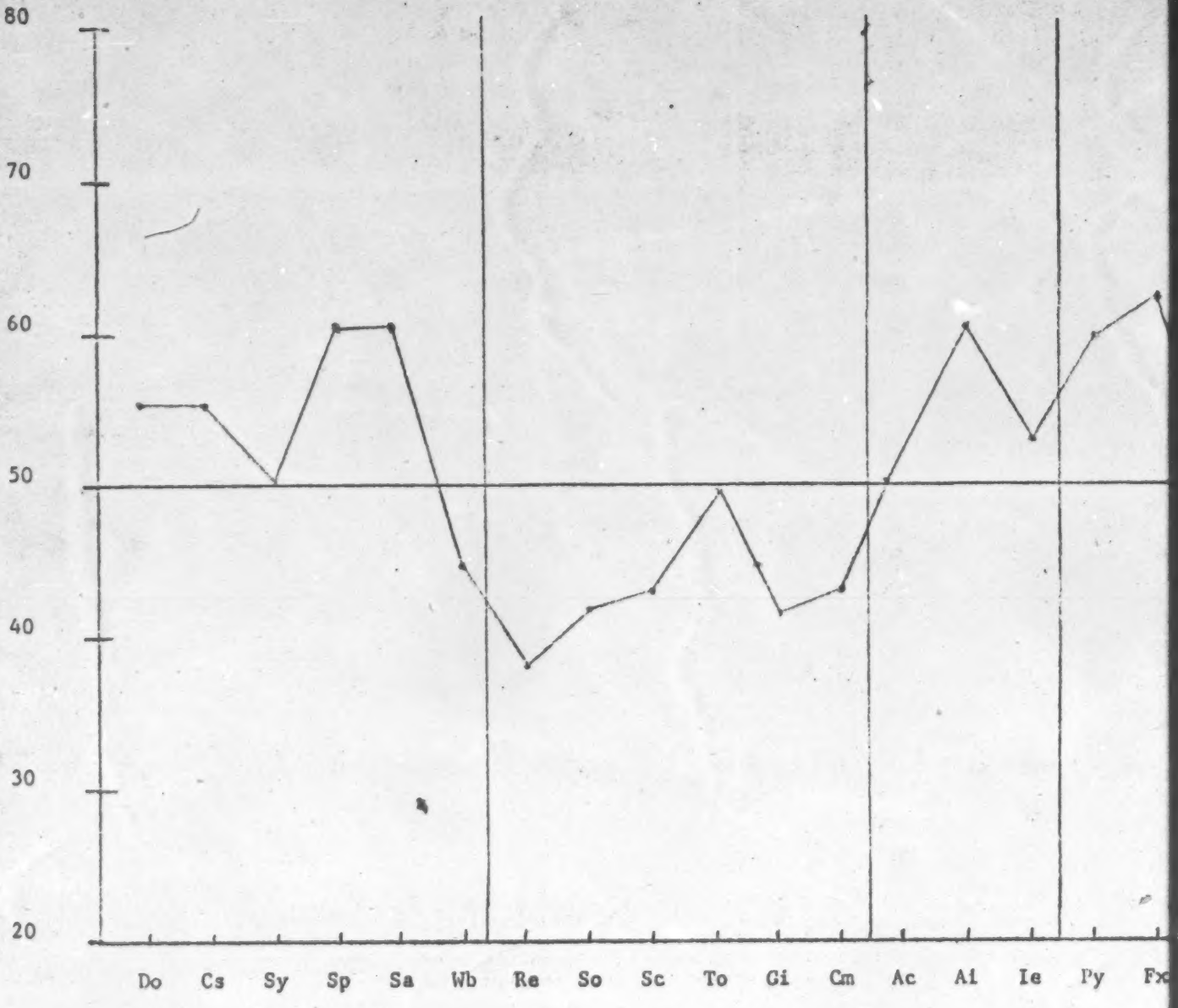
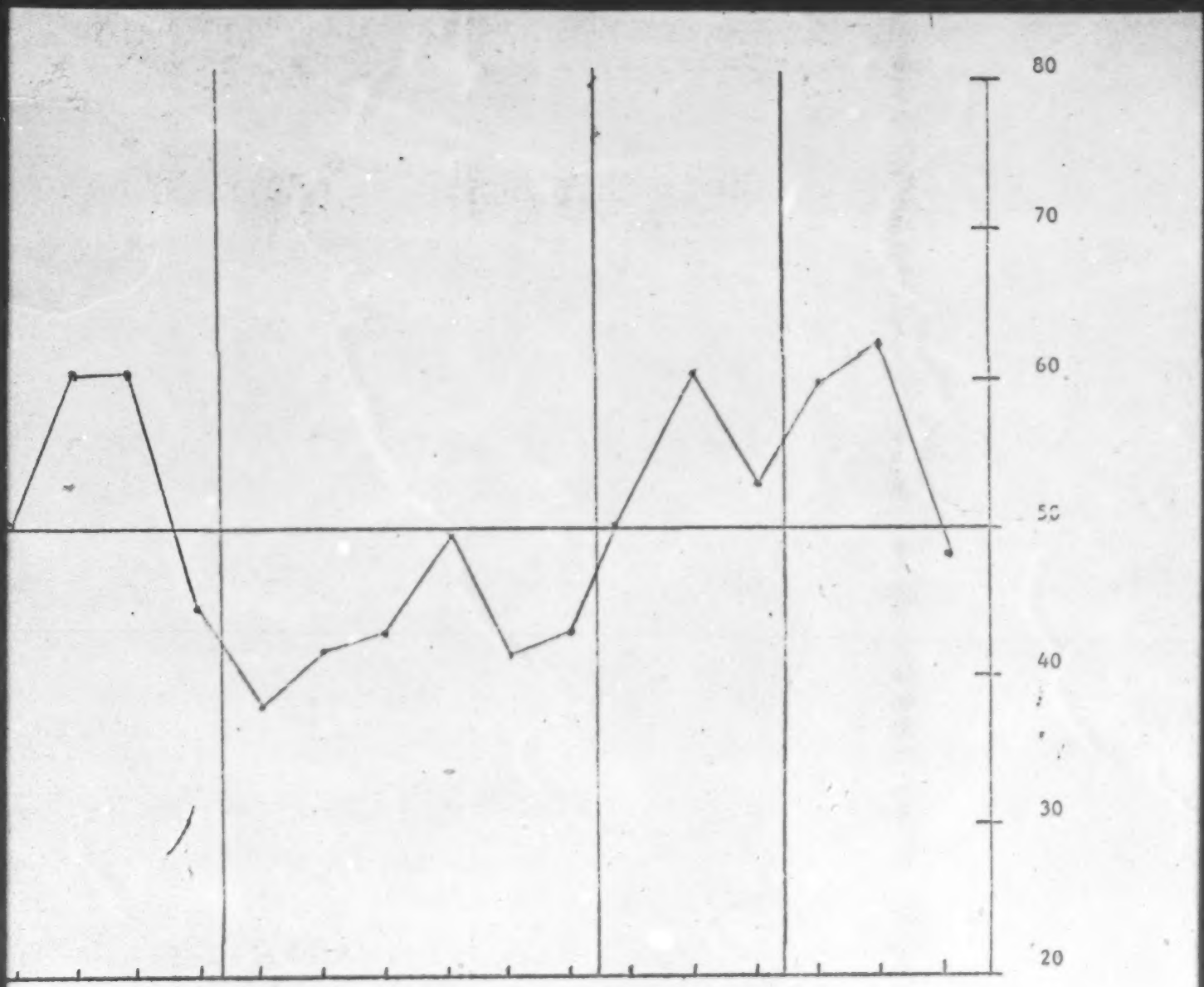


Figure 6: California Psychological Inventory; 3 Years Combined Post-test.



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California Psychological Inventory; 3 Years Combined Post-test.

and Social Presence. These scales express personal and social mannerisms described as intelligence, enthusiasm, outspokenness, demanding, imaginative, and spontaneous. Finally, high scores on Achievement via Independence completes the groups' profile as mature individuals with strong interest and motivation which facilitate achievement in settings where autonomy and independency are positive behaviors.

Adjective Check List--Self Ratings.--There were very few significant pre-post changes on the Adjective Check List for each of the three groups of trainees. Of the 24 scales, only two showed change for the first year, 3 for the second, and 1 for the third. The one consistent change over time was associated with the "number of favorable adjectives checked" which increased significantly for 2 years combined ($p < .01$) and for 3 years combined ($p < .05$).

Comparison of the first two years of trainees on self-ratings yielded results contrary to those obtained with the California Psychological Inventory. Thus, at pretesting only 2 scales showed a significant difference between the two groups ($p < .05$, Mann-Whitney U Test, two-tailed) whereas at posttest 5 scales showed a significant difference. First year trainees rated themselves higher in self confidence, lability and need for achievement while checking more adjectives and more favorable adjectives.

In contrast to the C.P.I. findings, the combined A.C.L. profile for the three groups is remarkably flat with all scales clustering around the mean.

Ideal ratings.--None of the Adjective Check List scales showed significant changes for two-years or three-years combined analysis. There were significant changes, however, associated with each year: 1 for the first and third years; 6 for the second year. Findings for this particular year suggested real changes in the "ideal" for this group of trainees in that they wanted to be more self-confident, have more of a need for heterosexuality, autonomy and exhibition, and have less of a need for abasement.

On two of the scales just mentioned, the second year trainees also revealed significant changes in self-ideal discrepancy scores from pre- to post-testing. The difference between self and ideal ratings for self-confidence and for heterosexuality increased as it also did for the lability scores. A specific example of the change in discrepancy score can be given for the self-confidence scores: mean self rating scores decreased from 47.4 to 44.8 (nonsignificant in itself) while mean ideal ratings increased from 52.6 to 61.3 (significant at $p < .05$).

Discussion

Program.--One of the main reasons for including attitudinal and personality measures in the test battery was to learn if our teacher training program had an effect on trainees' personality. Conditions inherent in this particular program contained both advantages and disadvantages for such a study. Among the former was the length of the program--three years--providing as it did three separate samples of trainees or essentially two replications of the study. Among the disadvantages was the nature of the program itself--new, experimental, certain to change to some degree from year to year.

Because of the experimental nature of the program (as well as the small number of subjects in each group) the failure to find identical changes in each of the three groups may surprise no one. Although consistent findings did not occur from year to year, a pattern of change did emerge for all three years combined. To summarize results for all three groups, when posttest measures are compared to pretest, trainees (1) reported that they felt less disturbed by overtly aggressive behavior of children (P.B.A.); (2) increased their skill in decoding affective statements (C.O.F.I.) (3) tended to see others as less lovable and less competent (FIRO-F); and (4) checked a greater number of "favorable adjectives" when rating themselves (A.C.L.).

On the surface, the reports of four "significant" findings out of the many possible may not seem too striking. However, the specifics of those findings deserves some comment. The first two, for example, are considered essential for helping children cope with their feelings (Long, et al., 1969). A process of desensitization to the aggression of rebellious, acting out children must occur before a teacher or therapist or adult is in a position to help, to control, to work through that aggression. The ability to discriminate and to identify feelings--whether for receiving or for sending--is also a prerequisite to help those children who are so confused and disturbed by their own feelings. Thus, these reports of change in attitudinal and interpersonal behavior are considered highly significant from the point of view of program objectives.

The third finding--the tendency to see others as "less lovable," "less competent"--is seen as a natural outcome of a year's intensive contact with children who indeed perceive themselves in similar terms, who question their own lovableness and competency, their worth and adequacy. Perhaps this finding represents for the trainees the notion of an "ideal tarnished"--"others are simply not as lovable or as competent as I would like them to be." In the context of the trainees' experience, it does seem to represent at least a move away from the ideal and toward the real.

Despite the inherent pessimism of this finding, the one clear-cut result from the Adjective Check List provides a certain degree of optimism. For the trainees use a greater number of "favorable adjectives" in describing themselves at end-of-year than at the beginning. Thus, experience in the program may have led to a dampening of ideals about others but the same experience resulted in a more favorable perception of self.

Trainees.--Another reason for including personality measures in the test battery was to learn more about the trainees in the program. Although the group profile on the A.C.L. was neither descriptive or unique, that for the C.P.I. appeared richer in the information provided. (Indeed a personality description could be written from the profile.) The similarity in C.P.I. profiles for all 3 groups--at least at posttest--was striking. Although individuals certainly varied from the group profile, one could sense the group personality. Comparison of this group profile to profiles for other educational and occupational samples (Gough, 1956) indicated a definite similarity between our trainees and psychology or social work graduate students.

Comparisons among the three groups of trainees were also made and these proved informative, not only in discriminating among the groups but in showing indirectly changes in the program. For example, results of the

competency measures indicated that the first year rated themselves significantly better than the second year on a number of competencies. Differences between the first and second groups of trainees on personality measures were found for both the C.P.I. and the A.C.L. One aspect of these findings suggested the greater poise, self assurance, and self confidence of the first group compared to the second. Also, the second year trainees apparently demonstrated more dissatisfaction with its "ideal" as indicated by the greater frequency of change in ideal ratings from pre- to post-test.

Thus, the second group of trainees appeares less sure of themselves, more dissatisfied, in greater turmoil, more introspective. The differences between the groups are well documented. However, several questions remain unanswered. Were these characteristics actually intrinsic to this particular group? Did these findings result from program parameters? Was there an interaction between trainees and program-in-its-second-year? One fact is known: during the second year fairly dramatic changes in administrative and supervisory practices were effected. These changes were the direct result of trainees' input on "evaluation days" and of their action. There is some evidence then, to conclude that personality differences (and competency ratings) of the second year group were related to the program. The relationship is complicated. For the differences may have been both cause and effect of program changes.

Instruments.--As for the measures themselves some were rarely associated with significant findings; while others were quite productive in statistical outcome. The former was particularly true of attitudinal measures (M.T.A.I., VAL-ED). One might be tempted to say these measures are not sensitive to change. Our feeling at the moment is that a longer period than one year may be needed to demonstrate attitudinal change. Specifically, a one year follow up of graduates may be necessary to detect changes in attitudes, particularly on the VAL-ED. Given a year in another setting, one admittedly more real-life, might allow for more opportunity to observe, experience, re-think and reshape attitudes.

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